New Mexico

Wind Powering America

Clean Energy for the 21st Century

Since earliest recorded history, wind power has been used to move ships, grind grain, and pump water. Today, wind power is also being used to provide electricity to homes, schools, businesses, and entire communities. More than half the United States have wind resources that could support the development of utility-scale wind power plants.

In 1999 Southwestern Public Service Company (SPS) installed a 700-kW turbine on Llano Estancio Wind Ranch and began offering its New Mexico customers green power. According to SPS, the turbine could provide enough electricity for 1540 customers to purchase in 100 kWh blocks. The average New Mexico customer uses 700 kWh to 800 kWh of electricity monthly.

What is Green Power?

"Green Power" is power produced by renewable ("green") energy sources, as distinct from power produced by fossil fuel, nuclear, and other types of generators. Customers can arrange to purchase a certain amount of "Green Power" (actually energy, in kilowatt-hours) per month, for which they commonly pay a small premium to completely or partly offset any higher cost of renewable power sources. The policy of transferring these costs to Green Power customers is called "Green Pricing."

In February 1999, Southwestern Public Service (SPS) Company began offering green power to its New Mexico-based customers through its Windsource Program. The program offers electricity generated from a 700-kW wind turbine. The wind power is being sold to participating customers at a premium of $3.00 per 100-kWh block. Similar to the program of its sister company, Public Service Company of Colorado, customers can choose to purchase as few or as many blocks of wind energy as they want, up to their total monthly consumption.

The utility will commit to build a second turbine when the output of the first turbine is 80% subscribed. SPS is the first utility in New Mexico to offer its customers the opportunity to purchase wind energy.

New Mexico's Net Metering

The concept of net metering programs is to allow the electric meters of customers with generating facilities to turn backwards when their generators are producing more energy than the customers' demand. Net metering allows customers to use their generation to offset their consumption over the entire billing period, not just instantaneously. This offset would enable customers with generating facilities to receive retail prices for more of the electricity they generate.

On September 30, 1999, the New Mexico Public Regulation Commission (PRC) issued a rule requiring all utilities regulated by the PRC to offer net metering for cogeneration facilities and small power producers with systems of 10 kW or less. Municipal utilities are exempt because they are not regulated by the PRC. Excess electricity generated by a qualifying system must be purchased at the utility's "energy rate" or be credited to the consumer and carried over to the next month. When a customer leaves the system, utilities must pay the customer for any extra credits. There is no statewide cap on the number of systems eligible for net metering.

What is the installed wind energy capacity in the United States?

By January 2000, the total U.S. installed wind energy capacity was 2500 MW. (See http://www.awea.org/faq/instcap.html) That's enough electricity to meet the needs of 600,000 to 800,000 typical U.S. homes.

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Additional Resources

National Renewable Energy Laboratory
National Wind Technology Center
1617 Cole Boulevard
Golden, Colorado 80401
(303) 384-6979
www.nrel.gov/wind

U.S. Department of Energy
Denver Regional Support Offices
1617 Cole Boulevard
Golden, Colorado 80401
(303) 275-4826
http://www.eren.doe.gov/dro/

U.S. Department of Energy
Wind Energy Program
Forrestal Building
1000 Independence Ave., S.W.
Washington, D.C. 20585
(202) 586-5348
www.eren.doe.gov/wind

American Wind Energy Association
122 C Street, NW, 4th Floor
Washington, D.C. 20001
phone (202) 383-2500
fax (202) 383-2505
www.awea.org

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State Summary

Installed — 0.66 MW

Planned — 10 MW

In-State Wind Energy Potential:
31,990 MW capacity after land use and environmental exclusions
57 billion kWh per year electric energy

Installed Projects

Clovis (Llano Estancio Wind Ranch), 0.66 MW, online June 1999, Southwestern Public Service, Vestas V-47

Planned Projects

U.S. Army (Otero Mesa) Fort Bliss, Proposed 10.0 MW, TBD

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